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ABSTRACT

The course description provides objectives and goals, teaching techniques, and textbook selection criteria helpful to college teachers in planning, developing, and implementing research methodology programs for non-sociology students. The four major objectives of the course are: (1) to familiarize students with the library resources for research, (2) to introduce students to basic descriptive and inferential statistical measures, (3) to introduce some important principles of research methodology, and (4) to require students to devise and prepare a proposal for an original research project. Library and faculty cooperation are discussed and types of statistical data and levels of measurement taught in the course are described. "The Practice of Social Research" by Earl R. Babbie is designated as the textbook used to introduce principles of social research. (Author/DB)

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Teaching Research Methods to Non-Sociology Students

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Under-graduates and Their Teachers

SO 009 875

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Teaching Research Methods to Non-Sociology Students

In the small college inter-disciplinary cooperation is perhaps even more important than in the universities and in small colleges where the majority of students are enrolled in specific "career preparation" majors the role of the liberal arts disciplines becomes at least partly that of service to the career programs. Fontbonne College is a small, (about 1000 students) Catholic college, only recently changed from a woman's college to a coeducational institution. At Fontbonne College about 85% of the students in the last few years have been in the teacher education programs, the Home Economics programs, or the Business programs. Although we do not think of Fontbonne College as representative of any particular "type" of college we believe that other institutions may be facing the problems of increasing the articulation between departments so that courses offered will serve the needs of more than a small group of students that happen to be majors in any particular area.

Sociology departments, other than those located in large universities often serve this function of providing courses which will be of interest to students in many different areas of concentration rather than in providing the more "in depth" courses which are directed particularly towards a relatively small number of students who plan to pursue academic and/or research careers as Sociologists. In planning curriculum then at our college we have tried to think in terms of not just the undergraduate education of students in this field but also of the needs of a broad number of students from other areas of interest.

In light of the emphasis in many disciplines upon the results of social research, as opposed to the research of the more exact physical sciences, we have found that one of the most useful contributions of our department is in providing an introduction to Research Methods and Statistics for non-science majors. The professional literature in the fields of Education, Psychology, Economics, Home Economics, Communications has always been heavily research oriented. Other disicplines such as History and Political Science are becoming increasingly interested in the statistical approach to the subject matter. It is our belief that students in any of these fields need an early introduction to the methods and rationale of social research in order to pursue intelligently the developments in their particular field and that without such an introduction at early stages of the undergraduate curriculum they will be unable to interpret the major portions of the literature in their field. We think that the logical time for such a course is in the Sophomore year or even in Freshman year if the student has shown evidence of mastery of some of the Freshman year objectives and appears ready for the introduction to more advanced course work.

Our course is specifically designed then with the idea that the students will not be sharing an interest in one particular discipline but will be focusing on a technique of study which can be used for a variety of purposes. Toward this end an important objective as teacher of this course is to be in contact with the academic advisers of our students to let them know what information we are bringing to their students and to encourage their interest in the student's use of this knowledge in their major field.

The formal objectives of the course are:

1. To familiarize students with the library resources for research and to teach the utilization of the library facilities in obtaining information

2. To introduce the student to some basic statistical measures, descriptive and inferential

3. To introduce some important principles of research methodology

4. To require students to devise and prepare a proposal for an original research project which it would be possible to implement as an undergraduate.

The first objective is done with the cooperation of the library staff, a part of the teaching faculty at Fontbonne College. The ideal staff member for this participation is the head of the Reference department and her contribution includes a tour of the library itself, instruction as to uses of the cataloguing system, and familiarization with the various periodical resources as well as the abstracts of the several disciplines and other widely useful sources such as census information, indices of current literature, goverment documents etc.

The second objective, that of introducing some basic statistics, I have found most usefully approached by setting aside about a one month period (in this 3 hour credit course, this amounts to about 3 class periods per week or a total of about 12 hours of instructional time) in which we concentrate on statistical concepts. Because I have not found a textbook which organizes the material in a way that meets my objectives I find that a sheaf of duplicated hand-out sheets will provide the student with examples of the measures we are studying and

a way to follow the class sessions. Although I imagine that others teaching such a course might choose some alternate way of organizing the material I have found it helpful to follow the outline below (after first reviving all my students, who have a tendency to blanch and make agonized groaning sounds upon the first mention of the word "statistics".)

A. Levels of measurement: intervals, ordinal, nominal, the three most commonly used in social research

B. Measures of central tendency and the applicability to data of various levels of measurement: mean, median, mode.

C. Measures of dispersion and variation around central tendency: standard deviation, semi-interquartile Q. Uses: The Normal Curve, the Standard Score.

D. Measures of Association and Correlation and their applicability to various levels of measurement: Pearson Product moment r: Spearman's rho: q coefficient of association.

E. Measures of Significant Difference and their applicability to various levles of measurement; Student's t test of difference of means; Kolmogarov-Smirnoff test of difference of ranks; Chi-square test of difference of populations.

I am not willing to defend this organization as the best way but only as a way that I have found gets across the idea that data must be handled according to the level of measurement precision which it allows and that there is a selection of tests and measurements that can be used to both describe the population being studied and draw some inferences, according to the level of measurement that the data allows.

For the third objective of introducing principles of social research I use The Practice of Social Research by Earl R. Babbie, (Wadsworth Publishing Co., Inc., 1973) and the accompanying workbook, Practicing Social Research. Guided Activities to Accompany the Practice of Social Research. Again this is a matter of choosing among many

alternative text books many of which also include a workbook which helps the student apply immediately the concepts studied. I find this book clear and well organized and find the review study guides in the workbook excellent and the exercises in applying the material original and fun for the students to do as well as simple enough to permit a sense of mastery for beginning students.

To be considered for a textbook for such a class, I believe that material on constructing hypothesis, the logic of sampling, types of research designs, and operationalizing of research designs should be particularly stressed. The complexities of multi-variate analysis and more complicated sampling problems can be deferred until the student is more advanced in his particular field.

The fourth objective of preparing a research proposal is the means of helping the student to see the relevance of the first three objectives as they involve themselves in 1. researching the literature on a particular topic, 2. designing a project and forming hypotheses, 3. operationalizing the research, 4. devising the ways that they will analyze their data, and 5. trying to see the implications of their study. It is at this juncture that the input of the student's major advisor is particularly helpful both in suggesting some relevant topics and in giving the student feedback as to the application of the study to the particular field. At our college, we have found that this project of devising a research proposal can be a good first step towards stimulating interest in a particular problem and can lead to a senior project or independent study that is highly rewarding to the student.

This rather detailed description of this course is meant merely as a springboard for discussion on our subject, the teaching of research methods to non-Sociology students. Some of the questions that this course might raise for our discussion are:

Why should such a course be taught by the Sociology department?

What are some other objectives that you would see as important to add to or to replace, the objectives mentioned?

Do you see the objective of constructing an original research proposal as an appropriate assignment at the undergraduate level?

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